

OWNERS MANUAL

PROFESSIONAL POWER AMPLIFIER

USB 7132

USB 7133

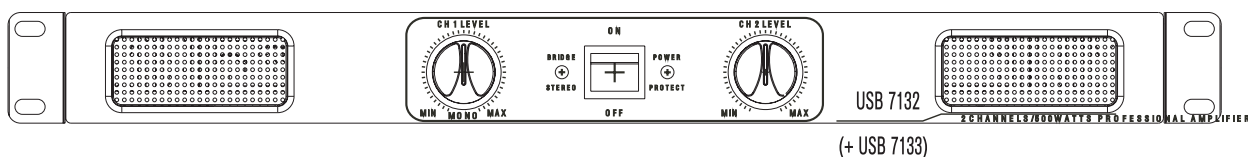
USB 7134



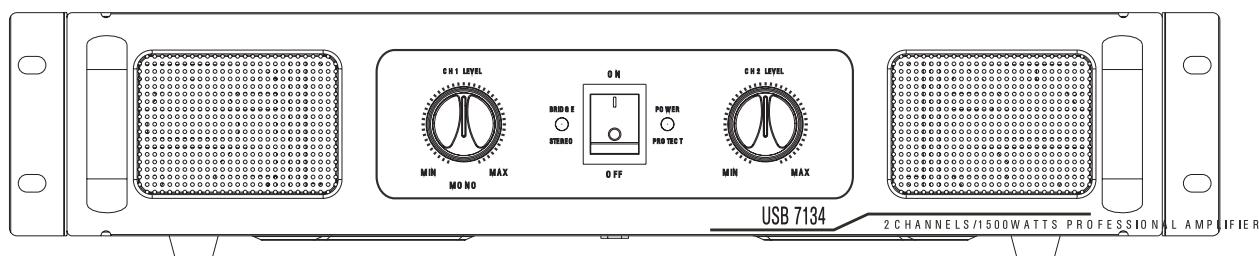
USB 7132 / 7133 / 7134 Professional Power Amplifier

INTRODUCTION

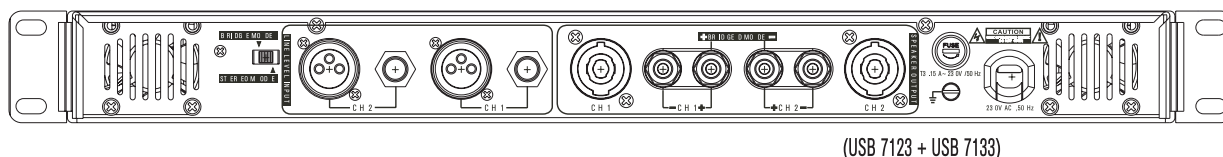
Front Panel



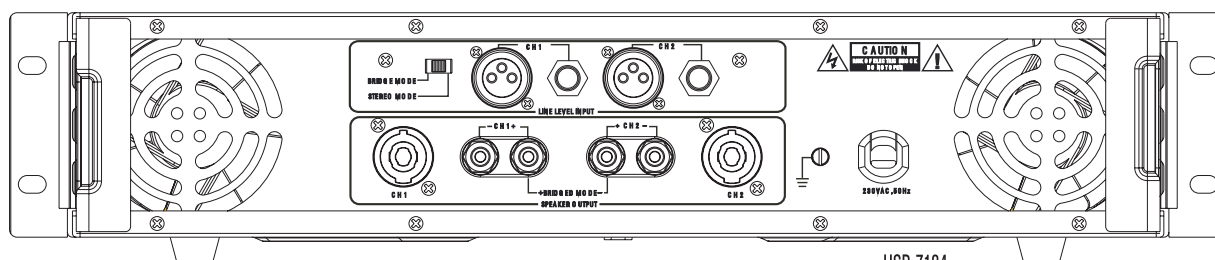
(+ USB 7133)



Rear Panel



(USB 7132 + USB 7133)



USB 7134

These series of amplifiers are high performance professional power amplifiers, USB 7132/7133 amplifiers are housed in the same size 1U cases while USB 7134 is in 2U cases. comes with features of light, All amplifiers come with powerful supplies along with massive heat-sinks and cooling fans. Unique overload protection, output shorted protection and thermal protection systems, ensure that the amplifier is always operating correctly thereby preventing both the amplifier and your speakers from failure. We set out to design an amplifier that is as equally at home in live touring sound environments as it is for installation amplification, We especially wanted to produce amplifiers that are capable of maintaining excellent performance when being driven to their limit with real loudspeaker loads. Sonic performance is always in the forefront of our minds and to this end our amplifiers represent the goal of many years work with professional amplifiers. Amplifiers have impeccable technical specifications, and extensive listening tests by many people with a wide variety of loudspeakers leads us to believe that they Sound pretty.

Unpacking

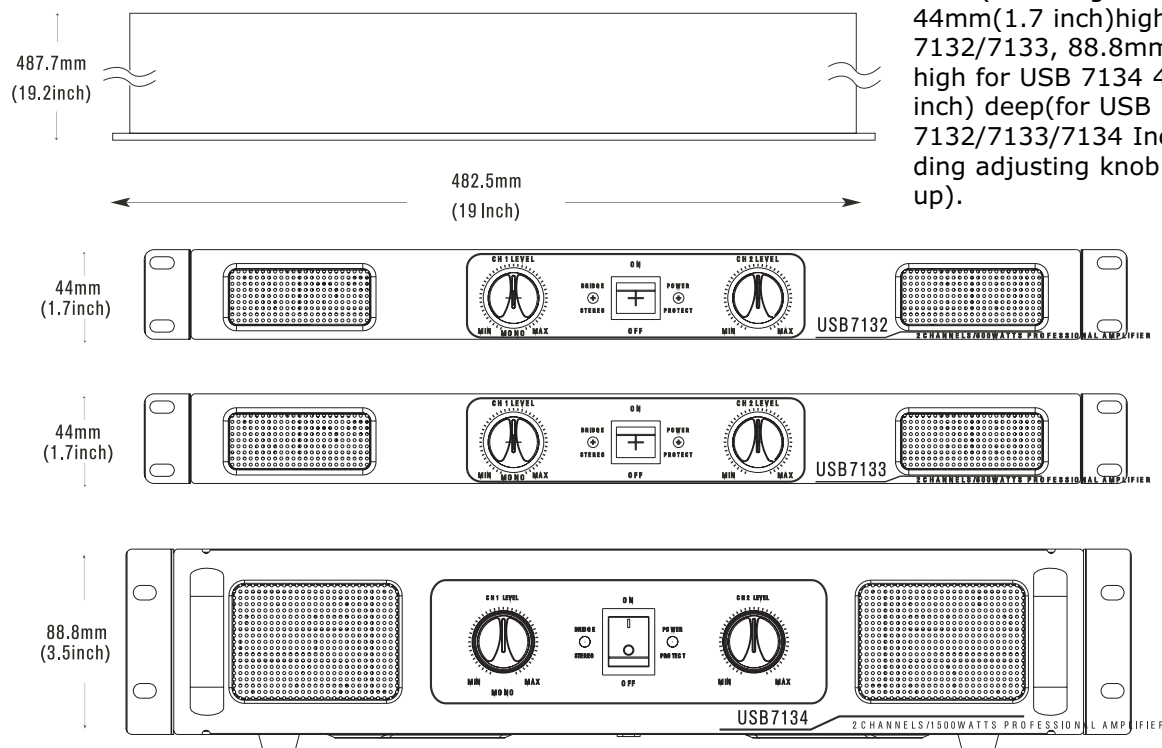
As part of the quality control, we check every product carefully before packing to ensure that it reaches you in flawless condition. Before you go any further, please check the unit for any physical damage and retain the shipping carton and all relevant packing materials for use, should the unit need returning. In the event that damage has occurred, please notify your dealer immediately, so that a written claim to cover the damages can be initiated.



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MOUNTING

Dimension: 482.5mm(19.0 inch)
wide (Including mounting ear),
44mm(1.7 inch)high for USB
7132/7133, 88.8mm(3.5 inch)
high for USB 7134 487.7mm (19.2
inch) deep(for USB
7132/7133/7134 Including protrud-
ing adjusting knob & rear hook-
up).



Mounting & unit dimensions

brackets and rear mounting plates must be fitted. These are available from your dealer. Damage caused by insufficient support is not covered by the warranty.

To prevent damage to the front panel finish, always use protective plastic cups or washers underneath the rack mounting bolts.

Ventilation gaps between units are not required, however care must be taken to ensure that an unobstructed free flow of clean air is possible from the back of the unit to the front. It is important that neither the rear air intakes or front exhaust grilles are covered. The internal airflow of all PA series amplifiers is designed to minimize contamination of the electronics by the cooling air so fan filters will not normally be required. If however, the amplifier is to be used in an environment where the intake air might be excessively dirty, optional external fan filters should be purchased from your dealer. Fan filters should NOT be fitted unless there is likely to be a problem as they require regular cleaning to stop them getting clogged. Clogged fan filters will result in the amplifier going into premature temperature protect.

PLEASE NOTE: Users must ensure that glycol based smoke and related substances are not allowed to enter the amplifier. Glycol based smoke is HIGHLY corrosive and prolonged exposure will cause irreparable damage to your amplifier.

Do not expose the amplifier to rain or moisture during either operation or storage. If the unit does come into contact with moisture, remove the AC power cord immediately and leave it in a suitably dry, warm place to dry out.

Be aware that when any equipment is taken from a cold location into a hot humid one, condensation may occur inside. Always allow time for the equipment to attain the same temperature as its environment before applying the AC power cord.

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Professional Power Amplifier



WARNING!

THIS APPLIANCE MUST BE GROUNDED.

The amplifier must always be connected to a 3-wire grounded AC outlet. The rack framework must also be connected to the same grounding circuit. The unit must NOT be operated unless the power cables' ground wire is properly terminated - this is important for personal safety as well as for proper control over the system grounding.

IMPORTANT!

The US Blaster amplifiers are designed to use 50Hz AC power. Acceptable AC input supply Voltage ranges from 200V to 250V

The application of voltages above those specified may cause permanent damage that is not covered by your warranty. Lower voltages may cause erratic operation.

Note that although the amplifier will operate correctly down to the voltages indicated, the quoted output power will only be achieved with the stated nominal voltages.

IMPORTANT!

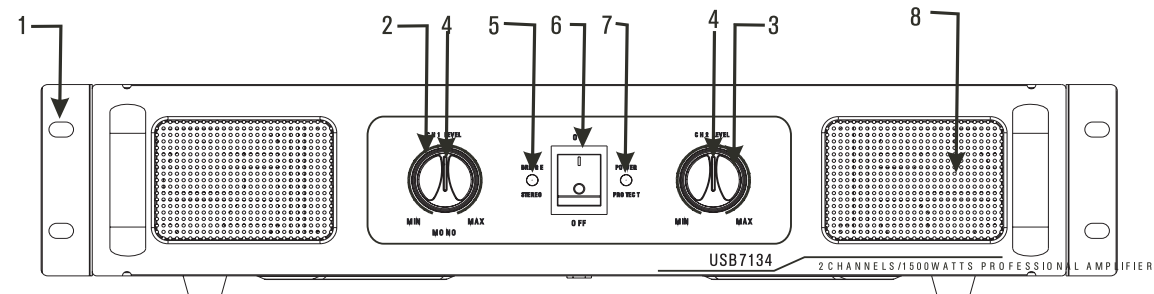
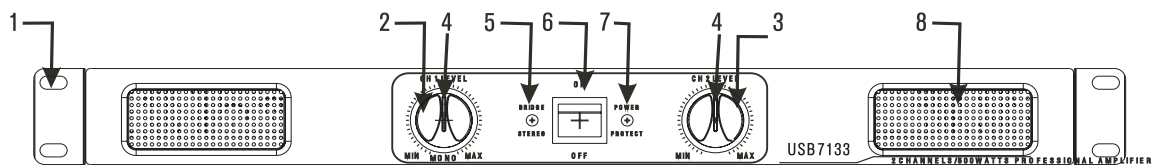
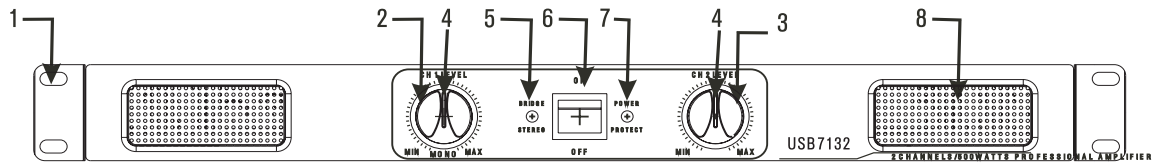
The AC power fuse carried on the rear of the unit must be fitted with the correct type and rating of fuse.

In the unlikely event of the AC fuse failing without good reason, ***disconnect the unit from the power Supply***, and always replace with the appropriately rated fuse for continued protection against damage and fire.

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FEATURES



1. Rack Mounting Ears

Two front-panel mounting holes are provided on each mounting ear.

2. Channel Level Attenuator for CH 1

The input attenuator adjusts level for CH 1. In bridged mono the channel 1 attenuator , controls overall signal level.

3. Channel Level Attenuator for CH 2

The input attenuator adjusts level for CH 2. In bridged mono , the channel 1 attenuator controls overall signal level.

4. Clip

This light is in fact rather more sophisticated than a simple clip indicator; it actually measures distortion. This may occur either due to clipping, trying to drive too low an impedance speaker load or any other mechanism that causes the output of the amplifier channel to not be as expected by the monitoring circuit. The green light turning to red indicates clip.

5. Bridged Stereo Indicator

A green LED lite indicates a bridged stereo mode is on. A red LED lite indicates a mono mode is on.

6. Power Switch

This switch turns the amp on and off. If the amp doesn't turn on when the switch is in the ON position, check the circuit breaker on the rear panel.

7. Power Protection LED

A green LED lite indicates power is ON. A red LED lite indicates power protection mode is ON.

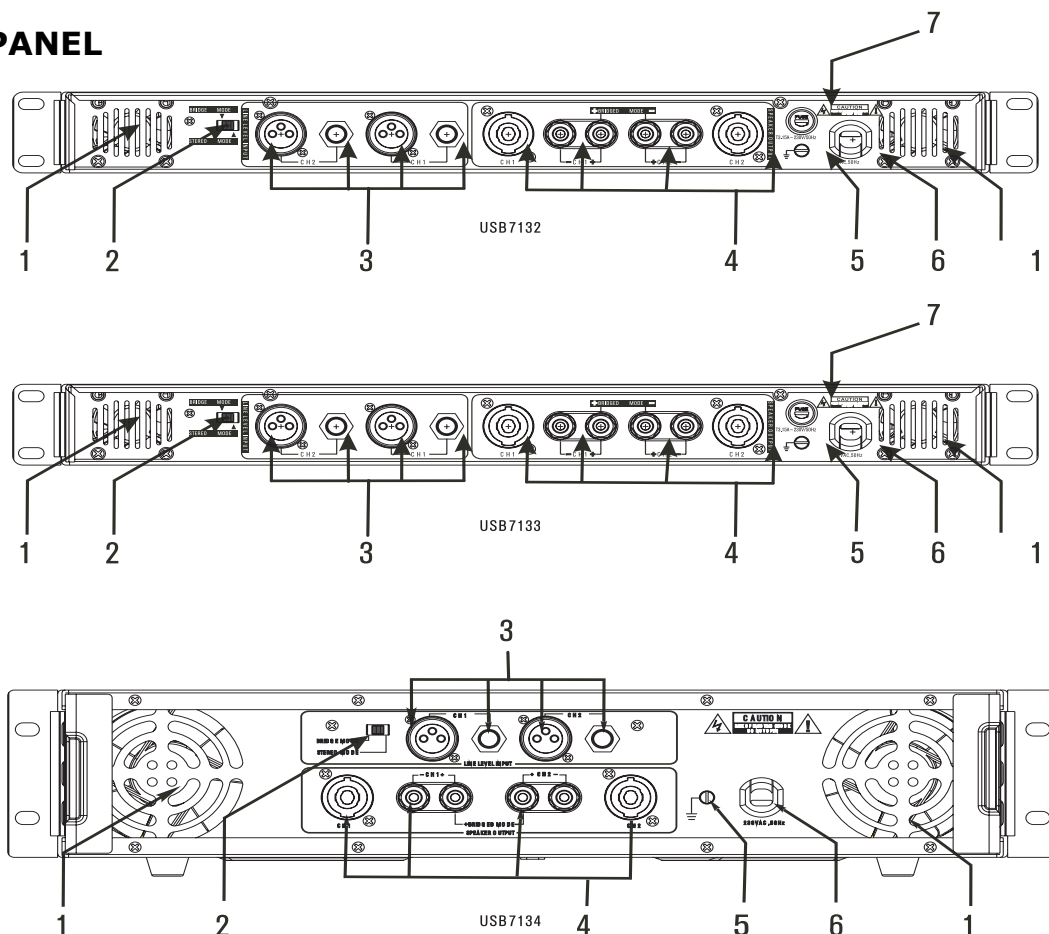
8. Fan Outlet Grill

PA 200/300/500 amplifiers are cooled by a single rear-mounted fan. Cool air flows over the heat sink and exhausts through the front grill. Make sure this outlet remains clear to allow unrestricted airflow.



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REAR PANEL



1. Fan

The fan operates continuously while the amp is on. An internal temperature sensor increases the speed of the fan during high temperature conditions. Air enters through the rear of the amp and exits through the front grill. Be sure to allow adequate air flow from the rear of the rack where the amp is mounted on.

2. Mode Selector Switch

The two-position mode switch configures the amplifier for. Stereo or Bridged Mono operation. The default factory setting is Stereo. See operation modes .

3. Input Connections

Input signals can be connected to the amp via the Phoenix connectors, The 1/4" TRS connectors and the Female XLR (pin 2 hot) connectors. Power. See Connections .

4. Output Connections

Speakers can be connected via the high current binding posts and the industry -standard Speakon (NL-4) connectors. Binding posts: One pair (Red- hot, Black- ground) per channel. Speakons: One connector for each channel. In Bridged Mono mode, the Speakon connector for Channel 1 is used exclusively. See Connections.

5. Ground Terminal

For your safety purpose, please make sure ground terminal is grounded before using.

6. Power Cord

Build-in AC power cord with plug.

7. Fuse

USB 7132	T3.15A-230V/50Hz	Fuse
USB 7133	T4A-230V/50Hz	Fuse
USB 7134	T8A-230V/50Hz	Built-in fuse

Note : fuse for USB 7134 is located at power supply board.



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OPERATION MODES

Choosing the appropriate mode

Special consideration when using Bridged mode

Stereo

Bridged

Mode Selection

The two -position Mode Select switch (located on the rear panel) configures the amplifier for Stereo or Bridged mode. Amplifiers are factory-configured for Stereo mode. Shut the amp off before changing modes.

Stereo

In Stereo mode, each channel operate independently, with their input attenuator controlling their respective levels. Signal at Channel 1's input produces output at Channel 1's output, while signal at Channel 2's input produces output at Channel 2's output. Recommended minimum nominal load impedance for stereo operation is 2 Ohms per channel.

Bridged

Bridged mode straps both amplifier channels together to make a single channel monaural amplifier. One channel pushes and the other pulls equally, increasing the power output over that of either channel alone (see Specifications). Channel 1 s attenuator is used to control signal level.

Use extreme caution when operating the amplifier in Bridged mode .Never ground either side of the speaker cable when the amplifier is in Bridged mode; both sides are hot.

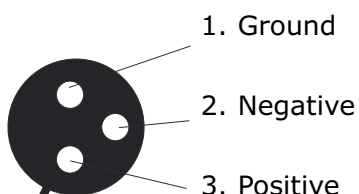
If an output patch panel is used, all connections must be isolated from each other and from the panel .The recommended minimum nominal load impedance in the Bridged mode is 4 ohms, which is the equivalent to driving both channels separately at 2 ohms.

When the amplifier channel is operated in Bridge mode, the power available doubles allowing larger speakers to be driven. Two things must be kept in mind when bridge mode is used, namely the minimum impedance that can be driven up to 4 ohms and if binding post outputs are used, the speaker wiring must be changed according to this manual. See connections.

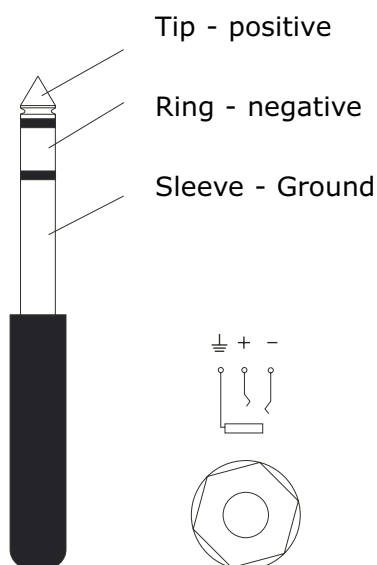


CONNECTIONS

Female XLR



Female XLR



Very high current is available at the outputs.

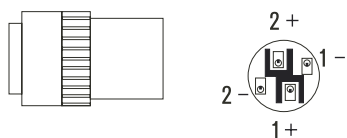


Please connect your output cable to the + and - terminals of each section precisely as shown.

Outputs

Speakers are connected using the high-current rive-way binding posts or speakon connectors, or both.

Stereo / Parallel



Speaker+ to PIN 1+ or PIN 2+
Speaker- to PIN 1- or PIN 2-

See operation modes.



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INPUTS

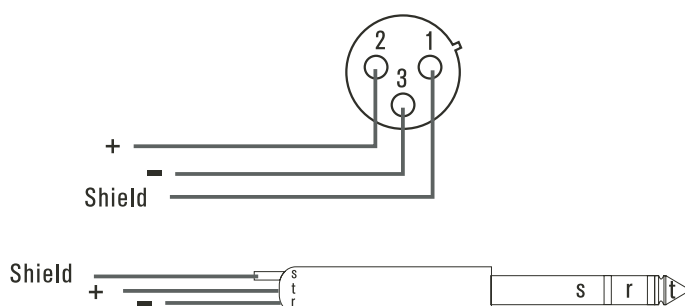
For each channel, there is a 1/4 phone jack socket and female XLR socket provided for signal input on the rear panel of the amplifier. Each is electronically balanced at an impedance greater than 20k ohms.

The phone jacks and XLR connectors are internally wired in parallel, and therefore either socket may be used for the input signal.

The HOT, +, or in phase connection is to pin 2 of the XLRs and the TIP of the phone jacks.

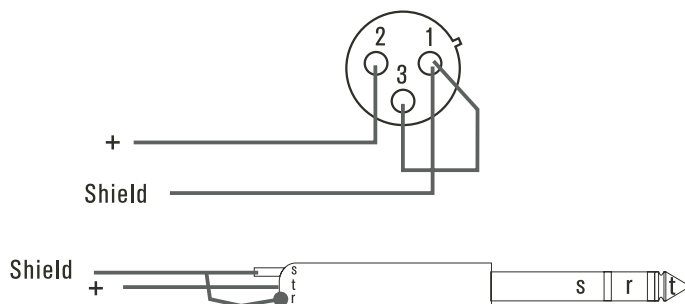
The COLD, -, or out of phase connection is to pin 3 of the XLRs and the phone jack RING.

Pin 1 of the XLRs and the phone jack SLEEVE are internally connected to the chassis. The screen of the input cable should always be connected to one of these points to ensure that EMC regulations are met. The cable shield ground should also be connected to the equipment which is providing the input signal.



Unbalanced operation

When feeding the PA series amplifiers from unbalanced sources, connect the signal conductor to pin 2 of the XLR or the phone jack TIP, with the cable screen going to pins 1 and 3 of the XLRs or the SLEEVE and RING (If available) of the phone jack.



For bridge mode operation, signal can be provided from either channel 1 or channel 2, or both, but no matter how to input the signal, the output level is only controlled by channel 1 attenuator.

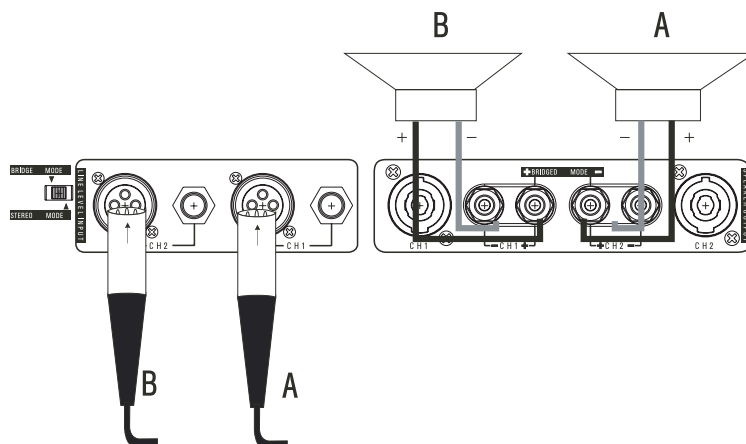


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OUTPUT

Stereo mode

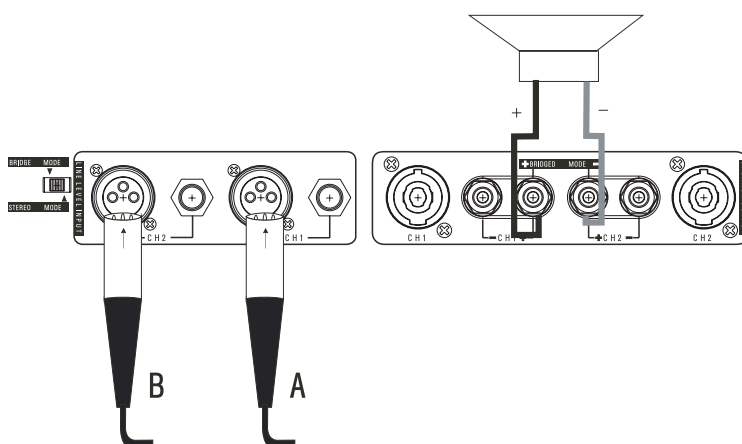
Output binding post connection



Bridged mono mode

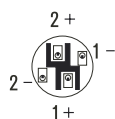
Output binding post connection

Note : if single channel input , it can also work , but the input sensitivity will be 1.4 times lower than that of both channel inputs .

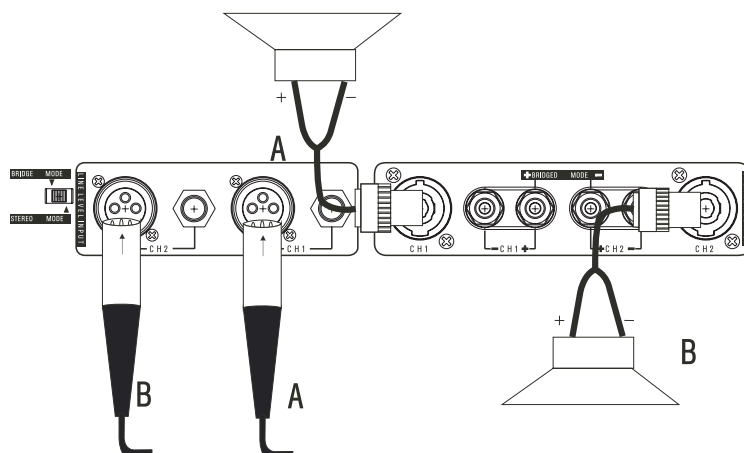


Stereo mode

Speakon output connection



Speaker+ to PIN 1+
Speaker- to PIN 1-



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SAFETY INFORMATION

- 1) Read these instructions and keep it in a handy place for future reference.
- 2) Be sure to follow all instructions and heed all warnings
- 3) Clean only with a dry cloth.
- 4) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 5) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
- 6) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 7) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 8) Only use attachments/accessories specified by the manufacturer.
- 9) Use only with a cart, stand, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
- 10) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 11) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

DO NOT REMOVE COVERS. NO USER SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

THIS EQUIPMENT MUST BE GROUNDED. SHOULD NOT BE NECESSARY TO REMOVE ANY PROTECTIVE GROUND OR SIGNAL CABLE SHIELD CONNECTIONS TO PREVENT GROUND LOOPS. ANY SUCH DISCONNECTIONS ARE OUTSIDE THE RECOMMENDED PRACTICE OF GROUND AND WILL RENDER ANY EMC OR SAFETY CERTIFICATION VOID.

For continued compliance with international EMC legislation ensure that all input cables are wired with the cable screen connected to Pin 1 of the XLR connectors and/or the jack plug sleeve.



WARNING! This equipment can create high sound levels. Exposure without adequate protection could cause permanent damage to hearing.





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CALCULATING IMPEDANCE

Measured in ohms, impedance is a measure of AC resistance. Loudspeakers generally come in 16, 8 or 4 ohm varieties. Amplifiers have a low limit to what impedance they can drive without being overloaded, there is not usually an upper limit. The PA series can drive any impedance between an open circuit and no less than 2 ohms when in stereo and between an open circuit and no less than 4 ohms when bridged.

If the speakers are wired in series, just add their impedances together. If they are in parallel there is a simple rule: two impedances the same will equal half the individual impedance, for example 8 & 8 = 4 or to take this further, four 8 ohm drivers = 2 ohms ($16 \& 16 = 8$ / $8 \& 8 = 4$ / $4 \& 4 = 2$).

Table for specification

ITEMS	CONDITIONS	USB 7132	USB 7133	USB 7134
OUTPUT POWER	8 Ohms 0.1% THD 1KHz	200W RMS x 2 Channel	300W RMS x 2 Channel	450W RMS x 2 Channel
	4 Ohms 0.1% THD 1KHz	300W RMS x 2 Channel	400W RMS x 2 Channel	700W RMS x 2 Channel
	2 Ohms 0.1% THD 1KHz	400W RMS x 2 Channel	500W RMS x 2 Channel	900W RMS x 2 Channel
	Bridged Mono 8 Ohms 0.1% THD 1KHz	600W RMS	850W RMS	1400W RMS
	Bridged Mono 4 Ohms 0.1% THD 1KHz	800W RMS	1000W RMS	1800W RMS
DISTORSION	Power 1W 4 Ohms 1KHz	0.2%	0.25%	0.3%
	Rated power 4 Ohms 1KHz	0.03%	0.055%	0.06%
INPUT SENSITIVITY	Output rated power (Level at Max.)	775 ±30mV	950 ±30mV	1400 ±30mV
VOLTAGE GAIN	Output rated power	31dB	31dB	31dB
S/N RATIO	Rated power 1 KHz +A (Level at Mid)	0.2%	0.25%	0.3%
FREQUENCY RESPONSE	1 KHz=0dB/-0.5dB (Level at Max.)	10--30K	10--30K	10--30K
CH. SEPERATION	Rated power 4 Ohms 1KHz	67 dB	70 dB	65.5 dB



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USER RESPONSIBILITY

Your PA600/800/1400 series amplifier is very powerful and can be potentially dangerous to loudspeakers and operators alike. It is your responsibility to read important precautions and make sure that the amplifier is installed, wired, and operated properly as instructed in this manual.

Many loudspeakers can be easily damaged or destroyed by overpowering, especially with the high power available from a bridged amplifier. Always be aware of the speaker's continuous and peak power capabilities. We are not responsible for damage to loudspeakers for any reason.

Speaker protection

All loudspeakers have electrical, thermal and physical limits which must be observed to prevent damage or failure. Cone or compression drivers can be damaged (sometimes to the point of failure) by excessive power, low frequencies applied to high frequency drivers, severely clipped wave forms, and DC voltage. All Series amplifiers automatically protect speakers from DC voltages and subsonic signals.

Tour Class Protection

The amplifier's clipping point is its maximum peak output power. At maximum peak output power, PA 600/800/1400 amplifiers will deliver more power than many speakers can safely handle. Be sure the peak power capability of the amplifier is not excessive for your speaker system. To ensure that the speakers never receive excessive power, and to prevent amplifier from clipping, use a properly adjusted external limiter (or a compressor with a ratio of 10:1 or higher) to control power output. Use one compressor/limiter for each frequency band in systems with active electronic crossovers.